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Nigel P. Clarence

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EXAMINER

WIEHE, NATHANIEL EDWARD

ART UNIT

PAPER NUMBER

3745

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/579,182 | Applicant(s) CLARENCE ET AL. | |
| | Examiner NATHANIEL WIEHE | Art Unit 3745 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6,8,11-20,22-28,30-37,44,45 and 47-53 is/are rejected.
- 7) ☒ Claim(s) 3,4,7,9,10,21,29,38-43 and 46 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2 May 2011 has been entered.

Response to Arguments

Applicant's arguments filed 2 May 2011 have been fully considered but they are not persuasive.

Applicant generally asserts that the examiner has exceeded a reasonable interpretation of the claim limitations in construing the meaning of an insert and a plate. The examiner respectfully disagrees. Claim limitations are to be given their broadest reasonable interpretation in light of the specification. However, Applicant advocates for the interpretation of each limitation in only an omnibus manner such that claim elements correspond only to the shapes set forth in Applicant's figures. Applicant's instant invention is indeed distinguishable from that of the applied prior art. However, a claim (in a utility patent) is not granted on differences in the figures. Such differences must be articulated in the language of the claim itself.

Applicant first contends that "rotor housing (1) is also not an insert located within the pump housing (9) ... ([as] the housing is the housing and not located within itself)."

However, the examiner has identified only element (4), the “end shield”, as the insert. The ordinary meaning of an “insert” does not preclude an insert from partially enclosing or forming the greater element. Miele’s end shield (4) is inserted into the main body (3). The main body (3) largely encircles and surrounds the end shield (4). This internal arrangement of the end shield (4) within the main body (3) is sufficient to read on the broad interpretation of an “insert” even thou the shield partially encloses the pump space. The only term in claim 1, defining any location-ally arrangement is the term 'insert' itself.

Applicant next asserts that the sleeve shaped seal of Miele cannot be construed as a “pump casing closure plate” since it is not flat and doesn’t conform to a selective number of definitions proffered by Applicant. The examiner respectfully disagrees. Applicant appears to conclude that the use of 'plate' in the claim confers not only that it is a relatively thin element, but also that it is flat and thin within a particular dimension. Applicant contends that plate must be construed as Applicant's own plate, one that is flat and thin within a radial plan extending outwardly from the shaft. However, the term plate does not itself convey such a dimensional orientation. Miele’s seal sleeve is flat and thin within a circumferential plane and forms a closure element at least in that it seals the pump housing. A sleeve is a thin, flat plate enclosed on itself. Miele’s sleeve does not need a flange-like portion to conform to the claim terminology as the cylindrical portion is itself a plate, just in a different plane than Applicant chooses to perceive it. Further, Applicant’s own “plate” includes two cylindrical ‘flanges’ nor could it be considered truly flat given these two perpendicular out of plane ‘flanges’.

Regarding Lehe, Applicant provides an annotated figure indicating how Applicant understands the rejection. However, what Applicant has labeled as the lower surface is in fact the inner surface of Lehe's part (34). As made clear by the other figures of Lehe the pump chamber is along the curved side (as it relates to Fig. 15, in the space where reference numbers 3,35,34 & 9 reside). It is unclear to the examiner how Applicant ever arrived at the conclusion that the inner surface would be at the point where the bellows is attached to the part. The passage to which Applicant previously cited, i.e. column 13, lines 11-13, relate to the embodiment of Fig. 12 and not the applied embodiment of Fig. 15, nor does it make any reference to an inner surface.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,5,6,8,11-20,22-26,28,30-37,44,45,47 and 48 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 197 18 027 A1, hereinafter "Miele". Miele discloses a centrifugal pump including a pump insert (4) located within a pump casing (11) and connected thereto through the use of an inter-engaging profiled coupling arrangement, in the form of a bayonet connection (12a,12b). The pump also provides a casing closure plate (13) sandwiched directly between the pump insert (4) and the pump casing (11). The pump insert (4) and the casing closure plate (13) are located about the pump shaft (6). The inter-engaging coupling arrangement achieves an

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appropriate coupling of the pump insert (4) to the pump casing (11). The inter-engaging coupling arrangement is formed by a plurality respective radially extending complementary teeth (12a,12b) and associated slots. Also, the respective cylindrical land areas of the pump casing (11) and the pump insert (4) constitute the respective support surfaces from which the coupling elements extend. Bayonet connections, such as that of Miele, are arranged so that the two parts (here 4,11) are initially brought together such that the coupling elements are misaligned and then rotating the two parts with respect to each other such that the engagement surfaces of the coupling elements slide into engagement with each other. The pump insert (4) includes an annular portion and a cylindrical portion that extends substantially perpendicularly from the outer surface of the annular portion. (See Fig. 2). The forward, inner surface of the pump insert (4) forms a portion of the pump volute.

Regarding claims 17 and 19, the term "integral" is sufficiently broad to embrace constructions united by such means as fastening and welding (in re Hotte (C.C.P.A.) 157 U.S.P.Q. 326); the term is not necessarily restricted to a one-piece article (in re Kohno (C.C.P.A.) 157 U.S.P.Q. 275); and may be construed as relatively broad (in re Dike (C.C.P.A.) 157 U.S.P.Q. 581).

Regarding claims 18 and 20, the limitation "formed separately of and subsequently connected to" is being treated as a product by process limitation; that is that the coupling elements are made by forming them separately and then attaching them to the pump insert/casing. As set forth in MPEP 2113, product by process claims are NOT limited to the manipulation of the recited steps, only to the structure implied by

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the steps. Once a product appearing to be substantially the same or similar product is found, a 35 U.S.C. § 102/103 rejection may be made and the burden is shifted to applicant to show an unobvious difference. See MPEP 2113.

Regarding claim 33, the limitation “adapted for use on both lined and unlined pump” is being treated as an intended use limitation. The recitation of intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. Here, the pump of Miele is capable of having a liner that does not interfere with or contact the casing and insert coupling, e.g. a liner applied as a coating. Thereby, the pump of Miele meets the claim limitation in that it is capable of use with a lined as well as unlined pump.

Regarding claims 36 and 37, the method of assembling a portion of the pump is apparent from the structure of Miele and the nature of Miele’s bayonet connection, as discussed above.

Claims 50-53 are rejected under 35 U.S.C. 102(b) as being anticipated by Lehe et al. (5,427,498), hereinafter “Lehe”. Lehe discloses a centrifugal pump including, in at least one embodiment, a pump insert (34) having an inner surface defining a portion of the pump volute that is coupled to the pump casing (1), adjacent the suction branch, i.e. the pump inlet, through the use of an inter-engaging profiled coupling arrangement, i.e. a “bayonet mounting”. (See Figs. 15 & 16). The insert (34) provides a flow path between the suction branch, i.e. inlet, and the pump impeller (6). (note Fig. 2). The

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pump includes a casing closure plate (29) forming a portion of the pump suction branch sealing arrangement that is secured against the pump casing insert. (See Fig. 15).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE 197 18 027 A1, hereinafter "Miele". As discussed above, Miele discloses the invention substantially as claimed except for the use of coupling surfaces that define a wedge profile. However, it is exceedingly well known in the art of bayonet connections to utilize wedge/ramp profiles on the engagement surfaces so as to produce a firm, tight connection. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bayonet connection of Miele by utilizing engagement surfaces having a wedge profile since such surfaces are well known in the art for the purpose of providing a firm/tight connection.

Allowable Subject Matter

Claims 3,4,7,9,10,21,29,38-43 and 46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHANIEL WIEHE whose telephone number is (571)272-8648. The examiner can normally be reached on Mon.-Thur. and alternate Fri., 7am-4:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571)272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NATHAN WIEHE/
Nathan Wiehe
Primary Examiner
Art Unit 3745